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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/919,008	07/31/2001	Kurt E. Spears	10013070-1	3181

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EXAMINER

LUU, THANH X

ART UNIT PAPER NUMBER

2878

DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/919,008

Applicant(s)

SPEARS ET AL.

Examiner

Thanh X Luu

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al. (U.S. Patent 5,278,677).

Regarding claim 1, Lee et al. disclose (see Figures 3A and 3B) a scanner, comprising: a platen (7) and an optical head (6), the optical head displaced from the platen by a distance that is variable (see positions in Figures 3A and 3B).

4. Claims 1, 4, 5, 7, 9, 13 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese Publication of Takahashi (JP 11-341219, published December 12, 1999).

Regarding claim 1, Takahashi discloses (see Figure 15) a scanner, comprising: a platen (1) and an optical head (2), the optical head displaced from the platen by a distance that is variable (by adjustment of 6a).

Regarding claim 5, Takahashi discloses (see Figure 15) a scanner, comprising: a platen (1); a photosensor array (5); and the photosensor array displaced from the platen by a distance that is variable (by adjustment of 6a).

Regarding claims 9 and 13, Takahashi discloses (see Figure 15) a method of scanning, comprising adjusting a distance of an optical head (2) or a photosensor array (5) relative to a platen (1); and translating the optical head or the photosensor array (see Figures 1 and 5).

Regarding claim 17, Takahashi discloses (see Figure 15) a scanner, comprising: a photosensor array (5); a platen (1); and means for changing a distance (6a) of the photosensor array relative to a surface of the platen.

Regarding claims 4 and 7, Takahashi discloses (see Figure 15) a scanner, comprising: a platen (1); an optical head (2) or a photosensor array (5) within an optical head; and pads (10, 6a) positioned between the optical head and the platen, where the optical head pivots around at least some of the pads (10; see also paragraphs 17 and 26).

5. Claims 1, 5, 9, 13 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ando (U.S. Patent 5,362,958).

Regarding claim 1, Ando discloses (see Figures 4 and 7) a scanner, comprising: a platen (not shown; see column 6, line 64) and an optical head (not labeled; block above 221 moving up/down), the optical head displaced from the platen by a distance that is variable (see up/down arrow).

Regarding claim 5, Ando discloses (see Figures 4 and 7) a scanner, comprising: a platen (not shown; see column 6, line 64); a photosensor array (not labeled; slim rectangular element just above element 221); and the photosensor array displaced from the platen by a distance that is variable.

Regarding claims 9 and 13, Ando discloses (see Figures 3, 6 and 7) a method of scanning, comprising adjusting a distance of an optical head or a photosensor array relative to a platen (adjust for focusing); and translating the optical head or the photosensor array (move image reading position; read entire image).

Regarding claim 17, Ando discloses (see Figures 4 and 7) a scanner, comprising: a photosensor array (not labeled; slim rectangular element just above element 221); a platen (not shown; see column 6, line 64); and means for changing a distance (221, 222, 223) of the photosensor array relative to a surface of the platen.

6. Claims 5 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by the Japanese publication of Yasuoka et al. (JP 63-222573, published September 16, 1988).

Regarding claim 5, Yasuoka et al. disclose (see translated abstract and Figures 1 and 2) a scanner, comprising: a platen (2); a photosensor array (4); and the photosensor array displaced from the platen by a distance that is variable (from a position in Figure 1 to a position in Figure 2).

Regarding claim 17, Yasuoka et al. disclose (see translated abstract and Figures 1 and 2) a scanner, comprising: a photosensor array (4); a platen (2); and means for changing a distance (6) of the photosensor array relative to a surface of the platen.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 6, 10 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando in view of Yasuoka et al.

Regarding claims 2, 6, 10 and 14, Ando discloses the claimed invention as set forth above. Ando does not specifically disclose piezoelectric elements disposed as claimed, wherein the distance is determined by a voltage across the piezoelectric elements. Yasuoka et al. teach (see translated abstract and Figures 1 and 2) piezoelectric elements at least partly positioned between the platen and the photosensor array, where the distance between the platen and the photosensor array is determined by a voltage across the piezoelectric elements. Thus, Yasuoka et al. recognize that piezoelectric elements provide for efficient and accurate adjustment of elements within a scanner. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide the piezoelectric elements of Yasuoka et al. in the method and apparatus of Ando improve detection through a more accurate means for varying a distance.

9. Claims 3, 8, 11, 12, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahashi.

Regarding claims 11, 12, 15 and 16, Takahashi discloses (see Figure 15) a method of scanning, comprising: translating an optical head (see Figures 1 and 5); and pivoting the optical head around a pad (10) or pivoting a pad (16), the pad between the optical head and a platen (1). The distance between the optical head and the platen is inherently a function of a direction of pivoting since the pivoting in any direction changes the distance. Takahashi does not specifically disclose a direction of pivoting is dependent on a direction of translating or pivoting as a result of translating the optical head. However, Takahashi further teach (see Figure 7) forces that act to tilt the optical head as it is translated. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to pivot as claimed in the apparatus and method of Takahashi to counteract or compensate for such forces to improve detection.

Regarding claims 3 and 8, Takahashi discloses (see Figure 15) the claimed invention as set forth above. Takahashi further discloses (see Figure 15) pads (6a) positioned between the optical head, the pads pivoting around a pivot point (10). Takahashi does not specifically disclose for a first direction of travel of the optical head the pads pivot to a first position, and for a second direction of travel of the optical head the pads pivot to a second position, and where the distance between the platen and the optical head is different for the first and second positions of the pads. However, Takahashi teaches (see Figure 7) forces that tilt to pivot the optical head as it is translated. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to pivot the optical head as claimed in the apparatus of Takahashi to compensate for such forces as desired to improve detection.

Art Unit: 2878


***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta, can be reached on (703) 308-4852. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

txl  
November 1, 2002

  
Thanh X. Luu  
Patent Examiner